

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

23. (Currently Amended) A filter, comprising:

~~n-number~~ a plurality of first filter poles between an input and a first output of the filter that are series connected with each other, ~~(n-1)~~ wherein each of said first filter poles are terminated in a corresponding resistor except for one of said first filter poles; and

~~m-number~~ a plurality of second filter poles that are directly series connected with each other, a first of said ~~m-number~~ of said second filter poles coupled to said one of said first filter poles that is not terminated with said resistor, and a last ~~of said m-number~~ of said second filter poles providing a second output of the ~~bandpass~~ filter;

wherein said ~~n-number~~ of first filter poles are configured to provide a first constant input impedance over frequency to said ~~n-number~~ of first filter poles, and said ~~m-number~~ of second filter poles are configured to provide a second constant input impedance over frequency to said ~~m-number~~ of second filter poles.

24. (Previously Presented) The filter of claim 23, wherein said first constant input impedance is equal to said second constant input impedance.

25. (Previously Presented) The filter of claim 23, wherein said first filter poles are low pass filter poles, and said second filter poles are high pass filter poles.

26. (Previously Presented) The filter of claim 23, wherein said first filter poles are differential filter poles.

27. (Previously Presented) The filter of claim 23, wherein said second filter poles are differential filter poles.

28. (Currently Amended) The filter poles of claim 23, wherein said first filter poles are terminated in a resistor R_1 and said second filter poles are terminated in a resistor R_2 .

29. (Currently Amended) The filter poles of claim 28, wherein said resistor $R_1 =$ resistor R_2 .

30. (Currently Amended) A method of filtering an input signal, comprising:
receiving an input signal;
lowpass filtering said input signal with a set of first filter poles having a first constant impedance over frequency, so as to output a first filtered signal;
tapping off a tapped signal from said set of first filter poles; and
highpass filtering said tapped signal with a second set of filter poles having a second constant input impedance ~~verses~~ over frequency, so as to generate a second filtered signal[[]] ;
wherein a subset of said first set of filter poles are terminated in a resistor R_1 , said step of tapping including the step of tapping said tapped signal from a filter pole of said first set of filter poles that is not terminated with said resistor R_1 .

31. (Cancelled)

32. (Previously Presented) The method of claim 31, wherein said first constant impedance is determined by said resistor R_1 .

33. (Previously Presented) The method of claim 32, wherein said second constant impedance is determined by a resistor R_2 in said second set of filter poles.

34. (Previously Presented) The method of claim 33, wherein said resistor R_2 is equal to said resistor R_1 .